



Blockchain Games and Collectibles - Patents and Other Legal Issues

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1. Blockchain Games and Collectibles Are on the Rise – The use of blockchain (or distributed ledger) technology for games (a.k.a blockchain games) and token-based digital collectibles is on the rise. The overnight popularity of [CryptoKitties](#) was as significant to raising the awareness of digital collectibles as Pokémon Go was to location-based AR games. However, the ecosystem extends well beyond CryptoKitties, and is growing rapidly. The ecosystem includes cross-platform crypto currency and tokens, digital asset marketplaces, digital collectibles, decentralized virtual worlds and more. Yet another standard “dGoods” provides a digital, distributed, open standard for virtual items on blockchain.

A significant amount of investment is going into this space. Blockchain gaming startup Forte has [announced](#) a deal with Ripple’s Xpring crypto currency platform to invest \$100 million in game developers who make games based on blockchain technology. Forte was founded by Kevin Chou (who led Kabam to its nearly \$1 billion sale).

2. Cross-platform Crypto Currency and Tokens – Many blockchain games use the ERC-721 Non-Fungible Token (NFT) standard, which allows each item to be unique via its own serial number. One of the problems with many existing token designs is that they require deploying a separate contract to the blockchain for each item type. A new standard, [the ERC-1155 token](#), takes a different approach, enabling tokens to be stored in a single contract with minimal data needed to distinguish one token from another. The contract contains configuration data per Token ID and all the behavior governing the collection.

One of the leading blockchain game currencies is Enjin Coin (“ENJ”), a crypto currency and smart contract platform. Enjin recently [announced](#) an SDK for [Unity](#) developers.

3. Digital Collectibles – CryptoKitties is a digital collectibles app that enables users to breed (and sell) digital kittens, leveraging a genetic algorithm. Some of the rarer crypto kitties have sold for more than \$USD 100,000! But there is not much interactivity with the kitties at the moment. One of the most robust digital collectibles apps to date is the [MLB Crypto Baseball](#) app by Lucid Sight. This is a major league baseball-based collectibles app, where the value of the collectibles are impacted in real-time based on the performance of the real baseball players. This is a much more engaging approach and one that has the possibility of creating a sustainable economy.

4. Digital Asset Marketplaces – Also growing is the number of digital assets marketplaces. These marketplaces enable users to buy, sell, trade and manage digital collectibles and other tokens. Some of the more well-known markets include [Open Sea](#) (which claims to be “the largest marketplace for crypto collectibles”) and [Rarebits](#). Open Sea summarizes its offering as “a decentralized marketplace for crypto assets, which include collectibles, gaming items, and other digital goods that are backed by a blockchain like Ethereum.... [where] you can buy or sell any of these items through a smart contract, meaning that no central authority ever holds custody of your items.”

5. Decentralized Virtual Worlds – One of the front runners in the decentralized virtual world space is [Decentraland](#). Like a blockchain-based version of [Second Life](#), Decentraland touts that it is a fully decentralized and open market where you can discover, buy, sell, and manage your parcels of land, build on it and generate revenue from your efforts.

[One Game](#) is a decentralized virtual world game platform where players can create their own games. One Game introduces a decentralized and self-evolving world of “infinite variability” governed by creators, gamers, and players based on a set of consensus protocols that reward and incentivize the contributing actors. One Game self-evolves with the help of genetic algorithms and other artificial intelligence algorithms.

6. Game Patents – Patents are still a very misunderstood business tool. Much is written about patents (by non-attorneys). However, a good portion of it, at best, evidences misunderstandings and misperceptions. Some of it is flat out wrong.

Game patents are even less understood. We still hear developers express the belief that games cannot be patented. That is not exactly true. There are thousands of patents on game mechanics, game features, game technology and other aspects of games. A quick search of the U.S. Patent office database (as of March 2019) shows 16,675 patents in class 463 (which is the U.S. Patent Office classification that includes video game patents).

7. Blockchain Patents – Crypto currencies and blockchain technology are rapidly emerging as disruptive technologies. As has happened with many new technologies, particularly disruptive ones, a patent arms race is occurring. The number of patents being filed for these technologies is rapidly increasing. Many of the applications have been just recently filed and are still pending. A recent search of published U.S. patent applications (as of March 2019) reveals that there are 2029 published U.S. patent applications that mention blockchain. As there is an 18 month delay from filing until publication, it is likely that at least that many more have been filed but are not yet published.

We have previously published papers on [Patent Strategies for Cryptocurrencies and Blockchain Technology](#) and [Drafting Effective Blockchain Patents](#). These papers provide a primer on some of the patentable aspects of blockchain. As the number of blockchain-based patents and patent applications increases, more forward looking companies have become interested in pursuing these patents. Other companies still think that blockchain-based inventions are not patentable or just have not focused on them.

8. Blockchain Game and Collectibles Patents – There are many misconceptions around the patenting of games and blockchain technology, in general. We see even more confusion when it comes to the patentability of blockchain games and collectibles.

The number of patents on blockchain games and collectibles is currently quite small but will surely increase. The number of published U.S. patent applications that mention blockchain and games (as of March 2019) is only 190.

Many industry leaders (and others) are filing patents around blockchain games and collectibles. As detailed below, this includes companies such as Unity, IBM, Tap Project, IGT and others. The following is just a small sampling of some of the patents that have been issued and patent applications that are being filed around blockchain games. (*Note: Some of the pending applications may never issue. They are included here to illustrate what companies are pursuing in this space.*)

Patent Publication Number	Owner (from PTO Assignment Database)	Title	Summary
U.S. Patent 9,875,510	Inventor	Consensus system for tracking peer-to-peer digital records	A system and method for creating and tracking digital objects and records in a decentralized manner using a peer-based consensus mechanism.
U.S. Patent 9,947,015	Inventor	Analyzing digital images for authenticating memorabilia items	A system for authenticating and tracking ownership of memorabilia items including storing a verification certificate to a blockchain
U.S. Patent 8,523,657	IGT	Gaming system, gaming device and method for utilizing bitcoins	Wagering gaming systems for utilizing bitcoins and bitcoin fractions.
U.S. Patent Application 62/648408	Tap Project	Method and System for Converting Digital Assets in a Gaming Platform	A system and method for conversion and secured exchanges of assets, skins, environments, non-fungibles, and earned and premium virtual currencies on a decentralized ledger
U.S. Patent Application 15/655,014	IBM	Game data offloading to a blockchain	Determining whether the current status of the user activities requires updates to a local blockchain or a session blockchain, and storing the current status of the user activities in one or more of a local blockchain and a session blockchain

Patent Publication Number	Owner (from PTO Assignment Database)	Title	Summary
U.S. Patent Application 15/334,916	IBM	Blockchain gaming	Receiving one or more contracts related to a game stored in a blockchain, initiating a game session of the game based on the one or more contracts, and receiving information and actions related to a game player in the blockchain based on the initiated game session.
U.S. Patent Application 15/916,055	Unity	System and method for digital token exchange and delivery	A token exchange module configured to enable the acquisition and trading of tokens in a mixed reality environment using a blockchain ledger
U.S. Patent Application 16/125,740	Inventors	Mobile gaming and peer to peer gifting, receiving and donating platform using block chain integration of centralized or decentralized public ledgers for gaming elements to form, encrypt and distribute digital or crypto currency with quantum computing	Blockchain game engine to create digital currency of definite value for gift, exchange, transfer or transaction purposes.
U.S. Patent Application 20170352027	Cornell University	Authenticated data feed for blockchains	A trusted bridge for temporarily coupling data sources and a smart contract so data obtained from a given data source is authenticated in a secure enclave component of the trusted bridge (with application to sale of digital goods)

9. Sorting Fact from Fiction on Patenting Blockchain Games and Collectibles – Many companies have doubted the obtainability, viability or enforceability of game patents. We have been focused on game patents for over a decade and our attorneys/firm have been among the most active in obtaining these patents. Over the past few years, we have been increasingly more active in filing and obtaining blockchain patents. We have also handled tens, if not hundreds, of millions of dollars of transactions where game patents were sold or licensed.

In order to create valuable game or blockchain patents, it is important to understand what aspects of this technology can be patented. It is also critical to rigorously screen the ideas on the front end to avoid filing on ideas that are not obtainable or protectable or make for worthless patents. Doing this effectively only comes from the type of hands on experience we have in these areas. Then, for the ideas that make it through the filter, it is critical to properly draft the application in a way to maximize the likelihood that it will be granted and enforceable.

Not every patent attorney has the specialized skills necessary to do this. If you think you are doing something unique in this space, we strongly encourage you to talk to a patent attorney who has actual experience in this area to get a proper assessment of the patentability of your ideas. There is too much misinformation and there are too many misconceptions in this area not to do so.

10. Other Potential Legal Issues Blockchain Games and Collectibles – One of the real benefits of cross-platform crypto currencies and collectibles and digital markets is that players can own these items and freely buy, sell and trade them. They are not subjected to walled gardens that exist in most video games. However, this benefit creates some potential legal complications.

As detailed below, in-game currencies and virtual goods issued by game publishers and useable solely within their game avoid some legal issues (addressed below) precisely because they can only be used in that game and the game publishers do not permit items to be sold outside of the game.

Securities Law

Much of the regulatory activity in the crypto space has focused on Initial Coin Offerings (ICOs). Little attention has been paid to the legal issues surrounding blockchain games and collectibles. As explained below, some of the securities laws issues related to ICOs may be relevant to *certain* implementations in the blockchain games and collectibles space.

Many companies launched ICOs without complying with the regulatory requirements. The SEC has issued subpoenas to many companies that launched ICOs. It remains to be seen what will happen with these companies. The SEC has instituted enforcement actions against some.

Foreseeing the likely position of the SEC, we cautioned many companies on the legal issues and risks of not complying with securities laws when launching ICOs. We urge similar caution with certain implementations of digital goods.

Some crypto currencies and tokens are securities. Operating an exchange that enables these items to be bought, sold and/or traded may be deemed a securities exchange subject to securities laws.

We strongly recommend that blockchain game and collectibles companies obtain a competent legal analysis of their business model especially if they are offering a crypto currency, to ensure that they are not running afoul of securities laws and the SEC guidelines.

Gambling

Many game companies have been sued for allegedly engaging in gambling due to virtual goods that can be won (with some element of chance) and traded on unauthorized secondary markets. Many of these cases were dismissed, in large part, because the game companies' terms of services prohibited the sale, transfer or exchange of the virtual goods (including via secondary markets) and the game companies did not partake in or facilitate secondary markets. We have written about these cases and other gambling issues with games [here](#).

With some blockchain games, by design, digital goods can be sold on secondary markets and the games facilitate that. This may, in some circumstances, increase the risk that such activity constitutes gambling if the items are obtained by chance or are staked to win other items by chance. We strongly recommend that blockchain game companies obtain a competent legal analysis of their business model to ensure that they are not the next target for the class action plaintiff attorneys who bring gambling loss recovery actions.

Other Financial Regulation

In its March 2013 [guidance](#), FinCEN addressed the applicability of the Bank Secrecy Act (BSA) to persons creating, obtaining, distributing, exchanging, accepting, or transmitting virtual currencies. The guidance addresses “convertible” virtual currency, which it described as a type of virtual currency that either has an equivalent value in real currency, or acts as a substitute for real currency. The guidance states: “The definition of a money transmitter does not differentiate between real currencies and convertible virtual currencies. Accepting and transmitting anything of value that substitutes for currency makes a person a money transmitter under the regulations implementing the BSA.” It separately addressed “centralized convertible virtual currencies: and “de-centralized convertible virtual currencies.”

With respect to centralized virtual currency (a convertible virtual currency that has a centralized repository), it concluded:

The administrator of that repository will be a money transmitter to the extent that it allows transfers of value between persons or from one location to another. This conclusion applies, whether the value is denominated in a real currency or a convertible virtual currency. In addition, any exchanger that uses its access to the convertible virtual currency services provided by the administrator to accept and transmit the convertible virtual currency on behalf of others, including transfers intended to pay a third party for virtual goods and services, is also a money transmitter.

With respect to de-centralized virtual currency (a type of convertible virtual currency that (1) that has no central repository and no single administrator, and (2) that persons may obtain by their own computing or manufacturing effort), the guidance concluded:

A person that creates units of this convertible virtual currency and uses it to purchase real or virtual goods and services is a user of the convertible virtual currency and not subject to regulation as a money transmitter. By contrast, a person that creates units of convertible virtual currency and sells those units to another person for real currency or its equivalent is engaged in transmission to another location and is a money transmitter. In addition, a person is an exchanger and a money transmitter if the person accepts such de-centralized convertible virtual currency from one person and transmits it to another person as part of the acceptance and transfer of currency, funds, or other value that substitutes for currency.

In a late 2018 [speech](#), FinCEN director, Kenneth Blanco, stated: “FinCEN's rules apply to all transactions involving money transmission—including the acceptance and transmission of value that substitutes for currency, which includes virtual currency... Our regulations cover both transactions where the parties are exchanging fiat and convertible virtual currency, but also to transactions from one virtual currency to another virtual currency.”

Other legal and regulatory issues may be applicable, depending on your business model. Each situation is unique and the specific facts matter.

Conclusion

Blockchain games and collectibles hold great promise. As the pioneers who are innovating in this space hit on the right formula to make this work at scale and create great games, copycats will emerge and replicate these successful approaches. Filing patents now can help mitigate this.

Many of the advantages of blockchain games and collectibles may have the undesired consequence of complicating certain legal issues. The SEC is still focused on the aftermath of the ICO bubble. It has not been very focused (at least publicly) on this space. Don't repeat the errors of those who are suffering the consequences of having done illegal ICOs. Obtain an analysis of the legal issues and ensure your legal compliance.

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Sheppard Mullin's Blockchain Technology and Digital Currency team helps clients develop innovative and comprehensive legal strategies to take advantage of what may be the most disruptive and transformative technology since the Internet. We focus on advising clients on how to meet their business objectives, without incurring unnecessary legal risk. Our team includes attorneys with diverse legal backgrounds who collectively understand the vast array of legal issues with and ramifications of blockchain technology and digital currencies. [More Information](#)

Sheppard Mullin was one of the first major law firms to create a multidisciplinary Social Media and Games industry team. We advise clients on all aspects of interactive games and entertainment, including AR, VR, crypto games and collectibles, esports and fantasy sports. Our nationally recognized team includes IP attorneys who develop and implement comprehensive IP protection strategies, transactional and financing attorneys who get game and entertainment deals done, and regulatory attorneys who advise on digital currency, online gambling and other regulatory issues. Capable of handling any challenge, our Social Media & Games team has expanded to more than 70 attorneys in 15 offices in the U.S., Europe and Asia. [More Information](#)

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For more information on current Social Media and Games news and regulatory developments, please visit our Social Media & Games - Law of the Level Blog at: lawofthelevel.com
